利用懸浮培養茶葉細胞誘導兒茶素類生合成及其應用性研究

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摘　要

茶樹各品種之莖段培植體在 auxin 與 cytokinins 組合之 MS 培養基中經一個月，可見到癒合組織的發生。青心烏龍莖段培植體癒合組織誘導之最適培養基為 NAA 3mg/l 組合 BA 5mg/l 處理，有80％癒合組織之誘導率。台茶12號莖段培植體癒合組織之誘導以 NAA 3mg/l 組合 BA 1mg/l 處理時，誘導率最高為80％。台茶13號莖段培植體癒合組織之誘導在 2,4D 及 BA 各 5mg/l 之處理時得到較高之誘導率60％。台茶12號之懸浮培養細胞培養基為 NAA 5mg/l 組合BA 1 mg/l之 MS 液體培養基，依生長曲線間隔 10-14 天需繼代培養，而癒合組織仍具有合成兒茶素之能力。台茶 12 、 13 、 17 號及青心烏龍等品種之莖段培植體所誘導之癒合組織，在含 NAA 有 1-5mg/l 之 MS 培養基中培養，會有不定根之發生。

Studies of Formation and Application of Catechins Induced by Mass of Callus from Stem Disc Explants of Tea

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Summary

Mass of callus were induced from stem disc explants of four tested tea varieties on MS medium supplemented with auxin and cytokinins for one month. The best calli induction medium for stem disc explants was -MS medium containing 3 mg/l NAA and 5 mg/l BA(80% induced rate) in "Chin-Shin Oolong" , 3mg/l NAA and 1mg/l BA (80% induced rate) in "TTES No.12", 5 mg/l 2,4D and 5mg/l BA (60% induced rate) in "TTES No.13". The "TTES No.12" calli was suspension cultured on MS liquid medium containing 5 mg/l NAA and 1 mg/l BA, based on growth curve, subcultured after 10-14 days. Stem disc of "TTES No.12", "TTES No.13", "TTES No.17" and "Chin-Shin Oolong" cultured on MS medium with 1-5 mg/l NAA produced adventitive roots.